

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A needle guiding apparatus comprising:
a base defining an opening therethrough;
an outer rim disposed substantially completely around a perimeter of the base, the base and the outer rim defining an aperture between the perimeter and the outer rim, and the base being rotatable relative to the outer rim;
a guide platform disposed adjacent to the opening, the guide platform being rotatable about a rotation axis, the rotation axis extending through the opening and having a common point along the rotation axis;
a pivot disposed ~~substantially completely above a top surface of the base~~ at least partially within the guide platform and being rotatable about a pivot axis that is substantially perpendicular to the rotation axis; and
a guide shaft disposed at least partially within the pivot and extending along a longitudinal axis from a first end of the guide shaft to a second end of the guide shaft, the longitudinal axis intersecting with the rotation axis at the common point, the guide shaft being rotatable within a plane defined by the pivot axis, the rotation axis, and the common point, and comprising a radiopaque material between the first end and a locus along the guide shaft normal to the longitudinal axis at the common point, the radiopaque material extending to the locus, the locus located immediately adjacent to a material being less radiopaque than the radiopaque material.

2. (Original) The apparatus of claim 1 wherein the common point is located at the second end.

3. (Original) The apparatus of claim 1 wherein the pivot axis intersects the rotation axis at the common point.

4. (Original) The apparatus of claim 1 wherein the guide shaft comprises an inner wall of the pivot forming a bore.

5. (Original) The apparatus of claim 1 wherein the guide shaft is disposed at least partially within an inner wall in the pivot forming a bore.

6. (Original) The apparatus of claim 1 wherein the entire guide shaft between the first end and the locus comprises the radiopaque material.

7. (Original) The apparatus of claim 1 wherein the guide shaft is rotatable about the rotation axis and the pivot axis.

8. (Original) The apparatus of claim 7 further comprising a guide rod that is connected to the pivot and that is rotatable about the rotation axis and the pivot axis to transfer rotational movement to the guide shaft.

9. (Original) The apparatus of claim 8 further comprising a guide rod lock for preventing movement of the pivot.

10. (Original) The apparatus of claim 1 further comprising a grid disposed about the rotation axis.

11. (Original) The apparatus of claim 1 further comprising a shaft connected to the base, the shaft extending along a shaft axis perpendicular to the rotation axis.

12. (Previously Presented) The apparatus of claim 11, the outer rim being rotatable around the shaft axis.

13. (Original) The apparatus of claim 12 further comprising an outer rim lock for preventing relative movement between the outer rim and the base.

14. (Original) The apparatus of claim 1 further comprising a radiopaque point disposed proximate the guide platform.

15. (Original) The apparatus of claim 1 further comprising a radiopaque line segment disposed proximate the guide platform.

Claims 16-19 (Cancelled)

20. (Currently Amended) A needle guiding apparatus comprising:
a base defining an opening therethrough;
an outer rim disposed substantially completely around a perimeter of the base, the base and the outer rim defining an aperture between the perimeter and the outer rim, and the base being rotatable relative to the outer rim;

a guide platform disposed adjacent to the opening, the guide platform being rotatable about a rotation axis, the rotation axis extending through the opening and having a common point along the rotation axis;

a pivot disposed ~~substantially completely above a top surface of the base~~ at least partially within the guide platform and being rotatable about a pivot axis that is substantially perpendicular to the rotation axis; and

a guide shaft disposed at least partially within the pivot and extending along a longitudinal axis from a first end of the guide shaft to a second end of the guide shaft, the longitudinal axis intersecting with the rotation axis at the common point, the guide shaft comprising a radiopaque material.

21. (Previously Presented) The apparatus of claim 20, wherein the radiopaque material is between the first end and a locus along the guide shaft normal to the longitudinal axis at the common point, the radiopaque material extending to the locus, the locus located immediately adjacent to a material being less radiopaque than the radiopaque material.

22. (Previously Presented) The apparatus of claim 20 further comprising a guide rod that is connected to the pivot and that is rotatable about the rotation axis and the pivot axis to transfer rotational movement to the guide shaft.

23. (Previously Presented) The apparatus of claim 22 further comprising a guide rod lock for preventing movement of the pivot.

24. (Previously Presented) The apparatus of claim 20 further comprising a grid disposed about the rotation axis.

25. (Previously Presented) The apparatus of claim 20 further comprising a shaft connected to the base, the shaft extending along a shaft axis perpendicular to the rotation axis.

26. (Previously Presented) The apparatus of claim 20 further comprising a lock for preventing relative movement between the outer rim and the base.

27. (Previously Presented) The apparatus of claim 20 further comprising a radiopaque point disposed proximate the guide platform.

28. (Previously Presented) The apparatus of claim 20 further comprising a radiopaque line segment disposed proximate the guide platform.

29. (New) The apparatus of claim 1, wherein the outer rim surrounds the perimeter of the base.

30. (New) The apparatus of claim 10, wherein the grid is adjacent to a surface of the base.

31. (New) The apparatus of claim 30, wherein the grid is located along a top surface of the base.

32. (New) The apparatus of claim 10, wherein the grid comprises at least one marking configured to assist in guiding the needle.

33. (New) The apparatus of claim 1, wherein the base is substantially circular.

34. (New) The apparatus of claim 1, wherein the pivot is substantially cylindrical.

35. (New) The apparatus of claim 1, wherein the guide platform defines at least one slot to accommodate movement of the guide shaft.

36. (New) The apparatus of claim 1, wherein the guide platform defines at least one slot to accommodate movement of a guide rod connected to the pivot and rotatable about the pivot axis.

37. (New) The apparatus of claim 20, wherein the outer rim surrounds the perimeter of the base.

38. (New) The apparatus of claim 24, wherein the grid is adjacent to a surface of the base.

39. (New) The apparatus of claim 38, wherein the grid is located along a top surface of the base.

40. (New) The apparatus of claim 24, wherein the grid comprises at least one marking configured to assist in guiding the needle.

41. (New) The apparatus of claim 20, wherein the base is substantially circular.

42. (New) The apparatus of claim 20, wherein the pivot is substantially cylindrical.

43. (New) The apparatus of claim 20, wherein the guide platform defines at least one slot to accommodate movement of the guide shaft.

44. (New) The apparatus of claim 20, wherein the guide platform defines at least one slot to accommodate movement of a guide rod connected to the pivot and rotatable about the pivot axis.